AUTOMATED CRACK DETECTION OF BRAKE DISCS

Cracks in brake discs can compromise vehicle safety. Eddy current testing reliably detects surface defects with 100% inline inspection.

THE CHALLENGE

Brake discs are safety-critical vehicle components exposed to high mechanical and thermal loads during braking. Surface defects such as longitudinal, transverse or point cracks can compromise structural integrity and operational safety. To ensure that only defect-free material is installed, reliable 100 percent crack inspection directly within the production process is required.

THE SOLUTION

FOERSTER performs fully automated eddy current crack testing using the STATOGRAPH system combined with highly sensitive probes. Defined critical zones on braking and bolting surfaces are inspected on both inner and outer areas. Multiple probes scan the relevant zones simultaneously, forming a multi-channel solution with high throughput of up to 240 parts per hour. Seamless testing in the hub area is possible with the FOERSTER test software STATOVISION.

THE RESULT

The system enables reliable detection of surface defects in all defined inspection areas while maintaining high production speed. After testing, automatic sorting into OK and NOK parts is performed. Integrated documentation functions support continuous quality assurance and stable process control for safety-relevant brake components.

FOERSTER

STATOGRAPH CM+ / CM

Crack testing of complex workpieces with eddy current

STATOGRAPH PROBES

Probes for non-destructive crack detection of complex components using eddy current testing

STATOVISION CM

High-Resolution C-Scan Visualization for STATOGRAPH CM

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The FOERSTER Group is represented by subsidiaries and representatives in over 60 countries worldwide. You can find a complete overview on our website.

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